

**SYSTEM AND METHOD FOR  
PREDICTIVE MOTION ESTIMATION  
USING A GLOBAL MOTION PREDICTOR**

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**ABSTRACT OF THE INVENTION**

A system and method are provided for using global motion predictors (GMPs) in predictive motion estimation for the compression of video. The method comprises: receiving video frames; generating a set of global motion parameters for a current frame of video; in response to the 10 global motion parameters, generating GMPs for image blocks in the current frame; estimating motion between the current frame and a reference frame; subtracting reference blocks in the reference frame from image blocks in the current frame, leaving residual image blocks; and, encoding the residual image blocks in a video stream. Some aspects of the 15 method further comprise: generating local motion predictors (LMPs). Then, estimating motion between the current frame and a reference frame includes estimating motion using the GMPs and the LMPs. The process of estimating motion typically involves using previously encoded information, such as temporarily distant reference frames or other image 20 blocks in the current frame.